LISTING OF CLAIMS:

1. (currently amended) A method for forming an integrated ornamental surface on a monolithic concrete floor concurrent with the pouring and finishing of the concrete floor, comprising the following steps ~~of~~ in order:

preparing and forming the region upon which the monolithic concrete floor is to be poured;

contiguously pouring concrete throughout the formed region;

floating the concrete to effectively densify the concrete;

allowing the concrete to cure to a semi-stiff state;

finishing the exposed upper surface of the poured concrete to produce a generally planar surface;

disbursing a quantity of decorative aggregate over only the surface of the semi-stiff concrete ~~surface~~;

integrating the aggregate into the upper surface of the semi-stiff concrete;

~~allowing~~ partially curing the concrete with the integrated aggregate ~~to at least partially cure~~;

grinding the upper surface of the partially cured concrete with the integrated aggregate therein, including partially removing some integrated aggregate material at least until the aggregate is exposed uniformly over the top of the concrete;

fully curing the concrete with the integrated aggregate; and

polishing the upper surface with the integrated aggregate to provide a generally planar and smooth surface on the monolithic concrete floor.

2. (original) The method of claim 1 wherein said decorative aggregate has a particulate size of at least 6 mm and no more than 50 mm.

3. (original) The method of claim 1 wherein the step of disseminating the decorative aggregate includes distributing an aggregate selected from the group consisting of:

marble;
porcelain;
granite;
glass;
calcareous formations;
shells;
aluminum;
zinc;
brass;
copper;
plastic; and
manufactured objects.

4. (original) The method of claim 1 wherein the decorative aggregate is a naturally occurring material.

5. (original) The method of claim 1 wherein the decorative aggregate is a man-made material.

6. (original) The method of claim 1 wherein said semi-stiff state is determined by a one-quarter inch depression resulting from an applied normal force of between about 4 and 5 pounds per square inch.

7. (original) The method of claim 1 wherein the step of pouring concrete comprises the further step of pre-mixing, with the concrete, a colorant additive.

8. (currently amended) The method of claim 1, further comprising ~~the step of~~ applying a hardening compound to the upper surface after polishing.

9. (original) The method of claim 8, wherein the hardening compound is selected from the group consisting of:

silicates;

siliconates;

fluorosilicates;

siloxanes;

silazanes;

silanes;

silicon esters; and

combinations thereof in a solvent.

10. (original) The method of claim 9, wherein the solvent is selected from the group consisting of water and alcohol.

11. (currently amended) The method of claim 1 wherein said grinding step further comprises the steps of:

a rough first pass using a rotary head concrete grinding machine having a cutting head of diamonds;

a second pass using a finer grit on a disc comprised of silicon carbide and a bonding material; and

a polishing pass with a rotary head polishing machine using between a 200 grit to 1600 grit diamond pad .

12. (original) The method as described in claim 11, wherein at least the step of a polishing pass is repeated until the upper surface has a shine, and further including the step of applying a surface treatment to the polished upper surface, where the surface treatment is a chemical reactive concrete stabilizer providing a densified upper surface.

13. (original) The method of claim 1 wherein the monolithic semi-cured concrete floor is scored with a diamond saw to facilitate uniform stress releasing fracture.

14. (currently amended) A concrete floor having a smooth upper surface with an impregnated decorative aggregate, comprising:

an on site poured monolithic concrete base; and

an upper layer, at the top of the concrete base, having decorative aggregate integrated in the upper layer before curing, wherein said aggregate is permanently bonded within the upper layer and where the upper layer has been ground, before fully cured, to expose the decorative aggregate as part of the smooth upper surface thereby providing a generally planar and smooth upper surface.

15. (original) The floor of claim 14, further comprising a surface compound applied to the upper layer to reduce porosity of the layer.

16. (original) The floor of claim 14, further comprising a hard-coat sealant applied to the upper layer and penetrating into the upper layer.

17. (original) The floor of claim 14, further comprising a skid-resistant treatment applied to an exposed surface of the upper layer.

18. (original) The floor of claim 14, wherein the upper surface is a polished surface achieved by mechanically polishing the surface.

19. (original) The floor of claim 14 wherein the the decorative aggregate includes aggregate selected from the group consisting of:

marble;

porcelain;

granite;

glass;

calcareous formations;

shells;

aluminum;

zinc;

brass;

copper;

plastic; and

manufactured objects.